



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

649.4701

Job Sheet 168570



Part No: 649.4701

Job Qty: 1 ea

Part Name: AW119 Cable Cutter System



Part Weight: 0 lbs

Status: Scheduled

Priority: High

Job Created: 11/17/17

Job Tracking No:

Due Date: 11/30/17

Created By: Mario Poulin

Type: SOLD

Description:

Customer: Agustawestland Philadelphia Corp (CAGUS02)

3050 Red Lion Road Philadelphia, PA, 19114 USA ph:(215) 281-1400 fx:(215) 281-0447.

Note: IPP REV:A 12.11.05 NEW ISSUE DD VERF:JLM IPP REV:B AS PER ECR 12-54 13-07-09 JLM VERIFIED
BY:DD IPP REV:C 16.08.11 AS PER DWG REV.C DD VERF:JLM IPP REV:D 17.11.08 AS PER DWG
REV.E2 DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	11/30/17	11/30/17	0.00	0.00	Start Up Stores/Pkg-1		2017-12-14 JST
100	Packaging	1 pcs	11/30/17	11/30/17	0.00	0.00	Packaging1		2017-12-14 JST
110	QC	1 pcs	11/30/17	11/30/17	0.00	0.00	QC4		SmB
120	Packaging	1 pcs	11/30/17	11/30/17	0.00	0.00	Packaging3		SmB
130	QC21-FG	1 Ea	11/30/17	11/30/17	0.00	0.00	QC21		DEC 15 2017 Pg 103

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	600.1012 5021590	1	23	0	0
	601.2045 5021587	1	26	0	0
	601.3493 5021585	2	18	0	0
	646.9910 5021582	4	97	0	0
	647.9014 5021582	8	12 117	0	0
	649.4811 5021584	1	22 121	0	0
	649.4812 5021583	3	13 62	0	0
	649.4813 5021588	4	10 131	0	0
	649.4814 5021583	2	10 121	0	0
	649.4815 5021546	3	20 62	0	0
	649.4816 5021541	3	28 63	0	0
	649.4817 5021531	4	28 121	0	0
	649.4818 5021530	1	10 121	0	0
	649.4819 5021527	2	20 121	0	0
	649.4820 5021524	1	20 121	0	0
	649.4901 5021519	1	10 25	0	0
	649.4902 5021517	1	12 26	0	0
	649.5011 5021503	1	12 122	0	0
	649.5012 5021497	2	14 122	0	0
	649.5013 5021495	2	16 063	0	0
	649.5014 5021493	1	8	0	0
	649.5110 5021493	2	16 122	0	0
	649.5111 5021492	1	10 64	0	0
	649.5112 5021492	1	12 64	0	0
	649.5210 5021492	2	15	0	0

DAS
10
9-09

649.5010

5021747

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION			
Part No. _____		Rework ☐		Skid- ☐	
NCR No. _____		Scrap ☐		Machi ☐	
		Use-as-is ☐		Thermoform ☐	
		Suspected Unapproved ☐		Large ☐	
Date : _____		Step #: _____		QTY _____	
Description Work Order Deviation					
Root Cause					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Dan ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection I ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contaminat ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Shc ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐		
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐				
		OTHER : _____			

PART NO: 649.4701

Revision:

Operation:

Change No:

Start up Operation

Mfg Date: 12/14/17

Job No: 168570

AW119 Cable Cutter System

S021766

DART AEROSPACE

Engineering ☐

Quality ☐

Other ☐

2) Approval ☐

ated By ☐

Supervisor ☐

Verification ☐

Coordinator ☐

Approval ☐

ed Wrong ☐

Dimensions ☐

ider tolerance ☐

orrect ☐

t/Missing ☐

ived ☐

3 ☐

Misread ☐

Turning Sequence ☐

Dart Aerospace Ltd.

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Hawkesbury, ON K64 1K7

CANADA

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Email: sales@dartaero.com

www.dartaerospace.com

649.5211	5021485	1	15	122	0	0
649.5212	5006207	1	5	122	0	0
649.5213	5021467	2	13	122	0	0
649.5214	F109705	1	5	25	0	0
91420A230	5021336	13	61		0	0
4.55021335	FMI37507.40x	8	148		0	0
AN3C12A	5021313	4	28		0	0
AN4C5A	5021311	2	111		0	0
AN4C7A	5021304	2	237		0	0
AN970-3	5021308	24	262		0	0
CR3213-4-05	5021307	8	100		0	0
CR3213-5-63	5021305	32	6,791		0	0
MS20426AD3-4	5021331	6	8,744		0	0
MS20426AD3-5	5021227	4	2,072		0	0
MS20426AD4-4	5021228	23	1,275		0	0
5021225	MS20470AD4-3	10	1,008		0	0
	MS20470AD5-11	2	0		0	0
	MS21042-4	9	1,001		0	0
5021224	MS21042L08	22	1,093		0	0
	MS21042L3	4	1,202		0	0
	MS21042L4	3	406		0	0
	MS21059-3	20	74		0	0
	MS21069-08	2	44		0	0
	MS24694-C57	2	41		0	0
	MS24694-S58	12	161		0	0
5019521	MS27039-08-13	26	822		0	0
5019530	MS27039-08-19	3	115		0	0
	MS27039-08-24	4	432		0	0
	MS27039-1-08	6	483		0	0
	MS27039-1-10	13	463		0	0
	MS27039-1-13	4	558		0	0
	MS27039-1-14	4	1,441		0	0
	MS27039-1-18	2	108		0	0
	MS27039-1-25	2	4,335		0	0
5017018	-NAS1097AD-4-3	48	225		0	0
5017047	-NAS1149CN832R	53	2,494		0	0
5017046	-NAS1149F0332P	16	153		0	0
	-NAS1149F0363P	8	887		0	0
	-NAS1149F0432P	23	3,740		0	0
	-NAS1149FN832P	8	222		0	0
	-NAS1832-3-7	2	40		0	0
	-NAS1832-4-7	2	158		0	0
	-NAS1834C3-300	8	205		0	0
	-NAS620C-10L					
DAS	NAS1330S08KB106	(16)	5017018			
10	NAS93038	(80)	5017015			
9-88						

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER : _____																					

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES:

- 1 APPLY F/N 62 TO FAYING SURFACES.
- 2 AFTER INSTALLATION, APPLY F/N 63 A/R TO FILL GAPS AND FILLET EDGES
- 3 MATCH DRILL HOLE ON TAB OF F/N 13 TO FIT RIVET F/N 45
- 4 REQUIRED QTY
F/N 12: 1
F/N 15: 2
F/N 17: 1
INSTALL EXTRA AS NEEDED
- 5 INSTALL ONLY IF REQUIRED

3/87

DETAIL B

5/86

DETAIL D

4/87

DETAIL C

DETAIL A

2/87

UNINCORPORATED ECN(S)

05856, 05875

QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
4	77	601.4085	RIVET	NAS3030B-5-03	
4	76	601.3322	RIVET	MS20426AD4	
16	75	601.4084	RIVNUT	NAS1330508B106	
2	74	649.4819	SHIM		
1	73	649.4818	SHIM		
32	72	601.1983	NUTPLATE RIVET	MS20426AD3	
20	71	601.4083	NUTPLATE	MS21069L08	
48	70	601.1869	WASHER	NAS1149CNR326	
12	69	601.2988	SCREW	MS27039-0813	
20	68	601.2765	SCREW	MS27039-0819	
4	67	649.4817	SHIM		
16	66	601.3151	WASHER	NAS1149F0363P	
	65		DELETED		
	64		DELETED		
1	63	600.1012	SEALANT	PR-1425 CLAS B	
1	62	601.2045	RTV	LOCTITE 598	
8	61	601.2381	WASHER	NAS420C-10L	
8	60	601.2638	WASHER	NAS1149F0432P	
18	59	601.2764	WASHER	NAS1149F0832P	
53	58	601.1607	WASHER	NAS1149F0332P	
2	57	601.3470	WASHER	AN970-3	
6	56	601.1365	SCREW	MS27039-1-10	
4	55	601.1621	SCREW	MS27039-1-08	
2	54	601.3289	SCREW	MS27039-1-25	
6	53	601.2765	SCREW	MS27039-0819	
13	52	601.3190	SCREW	MS27039-1-13	
3	51	601.3124	SCREW	MS27039-0824	
4	50	601.1622	SCREW	MS27039-1-14	
4	49	601.2910	SCREW	MS27039-1-18	
1	48	601.3252	SCREW	MS2469558	
	47		DELETED		
2	46	601.3146	SCREW	MS2469AC57	
4701	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

REV	DESCRIPTION	DATE	APPROVED
1	LAST PRODUCTION REVISION PER		
2	INITIAL RELEASE	01-26-12	P. BRAVO
3	INCORPORATED ECN 05444 03489	04-17-12	P. BRAVO
4	INCORPORATED ECN 05527	05-29-12	P. BRAVO
5	INCORPORATED ECN 05732 05856 05875	07-26-12	P. BRAVO
6	INCORPORATED ECN 05731	04-04-17	P. BRAVO
7	INCORPORATED ECN 05818	08-02-17	P. BRAVO

2	45	601.1125	RIVET	MS20470AD5-11	
	45		DELETED		
	43		DELETED		
23	42	601.1773	RIVET	MS20470AD4-3	
12	41	601.1616	RIVET	MS20426AD3-5	
6	40	601.1900	NUTPLATE	MS21059-3	
1	39	601.3209	LOCKNUT	MS21042L4	
25	38	601.1624	LOCKNUT	MS21042L3	
9	37	601.1541	LOCKNUT	MS21042L08	
2	36	601.3008	INSERT	NAS1834C-300	
2	35	601.3468	INSERT	NAS1832-4-7	
8	34	601.3459	INSERT	NAS1832-3-7	
	33		DELETED		
13	32	601.4061	SCREW	91420A230	DIN965
	31		DELETED		
24	30	601.1183	CHERRY RIVET	CR3213-4-05	
	29		DELETED		
8	28	601.2020	CHERRY RIVET	CR3213-5-03	
	27		DELETED		
2	26	601.2669	BOLT	ANHC7A	
4	25	601.3555	BOLT	ANHC5A	
8	24	601.0788	BOLT	ANHC12A	
1	23	649.5112	WIPER DEFLECTOR		
1	22	649.5111	WIPER DEFLECTOR		
2	21	649.5110	WIPER DEFLECTOR		
8	20	647.9014	STRUT BRACKET		
4	19	646.9910	STRUT		
3	18	649.4815	SHIM		
3	17	649.4812	SHIM		
2	16	649.5213	DOUBLER		
4	15	649.4813	SHIM		
1	14	649.5211	SHIM		
2	13	601.3493	QUICK RELEASE PIN		
3	12	649.4816	DOUBLER		
2	11	649.4814	DOUBLER		
2	10	649.5210	DOUBLER		
1	9	649.5011	DEFLECTOR		
2	8	649.5013	DEFLECTOR		
2	7	649.5012	DEFLECTOR		
1	6	649.4811	CLIP		
1	5	649.5212	BRACKET		
1	4	649.5214	BRACKET		
1	3	649.5010	DEFLECTOR		
1	2	649.4901	UPPER CUTTER ASSY		
1	1	649.4902	LOWER CUTTER ASSY		
		649.4701	A119 CABLE CUTTERS KIT		

QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
4701	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
4701	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

ORIGINAL DATE 04-17-2012
DRAWN BY CHECKATE
S. COCH-RAN P. BRAVO
DRAWING APPROVAL
P. BRAVO
04-17-2012
CONTRACT NO.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.010
3 PLACE DECIMALS ±.005
ANGLES ±.5°

SCALE NONE

SHEET 1 OF 5

DART

AEROSPACE

APICAL INDUSTRIES INC.

(FOLD HERE TO SEE REVERSE)

A119 CABLE CUTTERS KIT

3030 ENTERPRISE CT.
SUITE A
VISTA, CA 92081
(760) 724-5300

REV E